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ABSTRACT

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Knowing, Loving and Willing: Basic Capacities for Developing Human Potential

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Knowing, Loving and Willing: Basic Capacities for Developing Human Potential

Abstract

Knowing, loving and willing are identified as the basic capacities for developing human potential. These three faculties are briefly defined and several dynamic models to describe their inter-relationship and role in developing potential presented. These capacities and models are further explored in relation to the fourteen learner-centered psychological principles proposed by the APA.

How can we expand or help bring into being the inherent ability or capacity of individuals and groups? Our efforts to bring these potentialities gradually to a fuller, more perfect condition can lead to a state of greater well-being, individually and collectively. Human development in this sense is a science, an art and a moral act. The science, art and ethics of development will need to consider and balance how differing innate and inherited potentialities are actualized through interaction with the environment. The science of human development will need to consider how our material and non-material or spiritual natures interact in developing potential. The art of developing potential will need to consider the aesthetics of development. The moral purposes of existence such as to know, love and create; acquire virtues; and carry forward an ever-advancing civilization will need to be considered.

The principles and ideals of developing human potential have been explored in the major philosophies and religions for centuries and are beginning to be studied by science during the last century. Science provides a way to better determine the validity and reliability of the perceptions of reality and of cause and effect presented by religion and philosophy. Together they can help us learn to facilitate the development of our natural capacities in a positive and optimal way.

Knowing, Loving and Willing (KLW)

Human nature, development and potentialities have been conceptualized variously in philosophy, religion, psychology, education and other fields of knowledge. My study of these fields has resulted in identifying three basic capacities for developing human potential: knowing, loving and willing (KLW) which relate to the cognitive, affective and conative domains or faculties in psychology and education. I have very briefly presented a comparison of some conceptualizations of these three fundamental capacities for developing human potential in Figure 1.

Place Figure 1 about here

Support for these three potentialities can be found in Eastern and Western religions and philosophies, as well as in current psychological literature. These three constructs and the distinction among them are well-founded in the field of psychology. All intentional human behavior, especially learning, involves these three aspects. Each of the KLW capacities progresses through predictable and identifiable stages of development. These stages and their characteristics have been discussed at

length in the psychological literature on the cognitive (knowing), affective (loving) and conative (willing) domains.

Knowing relates to cognition, "an intellectual process by which knowledge is gained from perception or ideas" (Webster's Dictionary), and the taxonomy of the cognitive domain developed by Bloom, Englehart, Furst, Hill and Krathwohl (1956). The area of cognition is one of the most studied in psychology and education. Knowing requires a disposition towards independent investigation of truth; an understanding reality as it really is, rather than as how we imagine it to be. Those who better understand reality are able to live more fully, happily, effectively, honestly and successfully.

Loving relates to affect, "a feeling or emotion as distinguished from cognition, thought, or action," and emotion, "an intense feeling; a complex and usually strong subjective response, as love or fear" (Webster's Dictionary). Krathwohl, Bloom, & Masia, (1956) have developed a related taxonomy of the affective domain. Love can be defined as an active force of attraction, and, as such, can be considered the most elemental force in the universe. It is considered a vital and basic aspect in all of the world's religions. Love gives us energy and directs our actions. On the highest level, love is the attraction to good, beauty and truth. Though emotions and affect are researched in their role for development, loving as a capacity is less accepted and explored in scientific literature. Below are some preliminary conceptualizations of the different stages of the development of the loving capacity.

Self love, competitive love, cooperative love and unconditional love can be viewed as progressive and hierarchical stages of love (Danesh, 1997). Love can also be conceptualized as hierarchical from self to family to community to nation to world, or from a selfish love to a universal love. Love as attraction can be expressed at each developmental stage according to the levels of reality: mineral, vegetable, animal, human and divine. At the mineral level it is the attraction of elements and atoms. At the vegetable level the power of growth or augmentation is added to the mineral attraction of cells. At the animal level is added the senses, emotions and feelings. At the human level is added the attraction of consciousness and KLW capacities and at the divine level is the spiritual attractions.

Willing relates to volition, "the power or faculty of choosing," and conation, "the aspect of mental processes or behavior directed toward action or change and including impulse, desire, volition, and striving (The American Heritage Dictionary of the English Language, Fourth Edition). A taxonomy for the conational domain exists in five stages: perception, focus, engagement, involvement, and transcendence (Atman, 1987). The research on and understanding of the conative capacity is much less than that for the cognitive and affective. Bandura (1997), Snow (1987) and Kolbe (1990) have done significant work on conation.

The practical expression of KLW in overt behavior depend the physical capacities to do so. Each capacity influences the others. Though they are distinct, it is hard to think of one without the others. These capacities can be scientifically measured based on behavior and actions. The taxonomy of the psychomotor domain (Simpson, 1972) is related to the translation of KLW into action.

Twirly-Whirly Model

I have developed a model to explain how these basic capacities interact to develop human potential. This model is called the Twirly-Whirly (TW) model and can be visually presented most simply

through analogy by having the three capacities represented as three spokes of a wheel or three blades of a propeller. There are several representations of the TW. Below we will explore how these three capacities interact to develop potential via various mechanical, mathematical and other models.

Spinning Models

I will start with the simplest and move to the more complex: squirrelly twirly, pin wheel, windmill and helicopter. Each new model and analogy adds new elements to the previous one.

Squirrelly Twirly. The TW was named after and inspired by a devise called a Squirrelly Twirly which is composed of three wooden spokes on a hub that rotates. Corn is put at the ends of each spoke so that when a squirrel attempts to move out on any of the spokes to get to the corn, that spoke will rotate to the bottom with the weight of the squirrel, causing the squirrel to fall off (hypothetically). (See Figure 2 for a visual representation of the TW).

Place Figure 2 about here

In this model, the hub corresponds to the physical self, and each of the three spokes represents one of the three basic human capacities. The corn at each end of the spoke symbolizes truth (knowledge), unity or beauty (love) and goodness (will). For us to develop our potential, we must move out from our physical self (hub) on the spokes of knowledge, love and will to realize our fullest potential by moving closer to truth, beauty and good (corn). As we move out on any one of the spokes to increase our knowing, loving or willing (KLW) capacities, we set the TW out of balance and in motion for developing human potential. This condition is analogous to dissonance or disequilibrium among KLW. Internal or external forces or changes in our environment can set the TW in motion by creating new knowledge, feelings or motivations resulting in imbalance among our basic capacities.

We can move out on any of the spokes to start the process of change. People have different predispositions or strengths that they will tend to have them favor one capacity over the others. Some may first see things differently (knowledge) which may cause them to want to align their feelings and volition to do something with that new knowledge or insight. Others might begin the change process by feeling differently (loving) which will create an imbalance and lead to an adjustment in understanding (knowing) and desires (willing). Others may start the change process by beginning with some action or goal (will) to requiring modifications in thinking and feeling. Movement out on any of these human capacities will result in a need to move out on the others to maintain equilibrium.

In this analogy, to keep the TW in balance: if we move out on one spoke, we must also move out to a comparable degree on the other two. As we advance outward on one of the spokes of knowing, loving or willing, then there must be advancement in the other two areas, otherwise one of the capacities becomes over-weighted. For example, as we know more, we need to love and will in relationship with that knowledge. As love increases, so too should knowledge and will. We can reach a point where all the capacities are in balance and stable. That is a place of homeostasis which may feel somewhat comfortable, but it is not a place of growth or moving out toward our goals.

challenge is to find a point where we are moving toward our goals while maintaining a healthy internal stability. Nothing remains static; we are either advancing outward toward our higher self (positive) or regressing inward toward our lower self (negative). Balance can be achieved by either moving further out (positive) or further in (negative) on the capacities.

To move outward is to respond with higher knowledge, love or will: to move closer to truth, unity and good. To move inward toward the hub is to choose to regress toward more self-centered and more limited expressions of KLW: to serve selfish or ego-centered purposes primarily. Some people will seek stability in times of change and stress by reverting to less developed and mature or more self-centered ways of KLW.

For example, an injustice may cause hurt (love) and a desire (will) to understand (know) how to best respond. This external event (injustice) results in internally putting the TW out of balance resulting in the person seeking equilibrium. A person can respond by pulling back or regressing in KLW to limit the spin of the TW, or can increase one's will, love and knowledge to deal with it more productively, thus achieving greater growth, development and autonomy and moving us toward realizing our potentialities. It involves courage and faith to journey outward. Advancement depends upon one's own exertions.

Pin Wheel. As an analogy, the pin wheel incorporates most of the principles found in the squirrelly twirly and offers several new ones. Both models require some external force to move them, both depend on a balance among the spokes, though the pin wheel less, and both have basically the same features and design, though the pin wheel does not have the corn. The differences between them include that the pin wheel is moved by wind rather than a squirrel and its main purpose is to spin, which may also be true for the squirrelly twirly from the human's perspective (whose original motive generally is to keep the squirrels from the bird feeders or to get some enjoyment from watching them driven to distraction trying to get the corn, which in my experience does not happen as the squirrels quickly figure out the ruse and go back to the more predictable positive reinforcement obtained at the bird feeders) , but not from the squirrel's perspective we are considering here.

The pin wheel's purpose is to spin. Our purpose is to realize our potential. The pin wheel accomplishes its purpose through vanes pinned to the end of a stick in such a way that it spins when blown upon. As in the squirrelly twirly, the pin denotes our physical self and the vanes our KLW. The wind or air pressure against the vanes causes the pin wheel to spin just as environmental forces and internal pressures can cause us to spin or develop. We can create spin by either moving ourselves against forces or exposing ourselves to external forces that will encourage our development.

We start with the pin as infants. KLW are undeveloped potentialities in new born babies. Gradually these potentialities begin to grow from the pin of the physical self as a result of development in interactions with internal and external environments. As our KLW begin to grow and develop, they are better able to deal effectively with the forces around them. As they extend out from the limited, undeveloped self toward truth, unity and good, our potentialities become realized and become better equipped to further actualize our latent ability.

If we stayed focused on material and selfish aspects of life beyond what is necessary for our development, the pin of our TW will be overdeveloped and the vanes of KLW underdeveloped,

hampering its turning by limiting the amount of vane surface in ratio to the pin. Those who stay centered on selfish love, knowledge and will or KLW for the benefit of their physical selves alone will not progress to the love, knowledge and will that lead to the freedom and happiness for which they are capable. They will lead lives that are not very challenging, satisfying or fulfilling.

There is a temptation and danger when developing these human capacities to revert or turn back toward the less-evolved selfish or physical purposes to find a false sense of well-being. By using our physical capacities to develop our KLW and using our KWL to maintain our physical powers at an optimal level without over emphasizing them, we can optimize the development of our ability. Advancement quickens when pin and vanes are working in harmony in perfect proportion and symmetry.

Moving from self-attraction to attraction to higher sources of knowing, loving and willing, allows for truer and healthier knowledge, love and will for developing the self, and results in an ongoing and further expression of our potential: the vanes of knowing, loving and willing grow to be able to better turn the TW. As the pin wheel faces the winds of change and challenges of life, it becomes stronger and larger, thus better able to capture and transform the energy needed for productive growth and development. An imbalance among the pin wheel parts makes spinning difficult, decreases the stability and integrity of the system and places greater stress on it. As a result further progress, growth and development are hampered.

Windmill. The windmill adds the elements of transforming one energy into another that is considered more useful. The spokes or vanes that are visible in the examples above are used to take the wind to generate energy to provide electricity or mechanical power to turn mills, pump water or other purposes. Using one force to create another is its purpose. As above, the hub or shaft represents the physical self from which KLW are attached and the blades, vanes, slats or sails of the windmill represent the KLW. The more balanced and efficiently designed the wheel of blades, the more power it can generate. The more force generated by the wheel of blades, the more energy and value is potentially created. The energy that is produced by a windmill can be used for many different purposes, both good and bad.

Though KLW interact with the external environment to generate power, the use and crucial workings of KLW/windmills are inside. A windmill may be turning externally, but generating nothing that is of use to the person or others. It is possible for the windmill to be turning freely with out being in gear and therefore not generating any useful. Two separate windmill spinning at the same sped may be create different kinds and amounts of useful power or different products. Like humans who may outwardly appear to be dealing with external conditions in a similar fashion, they may internally be processing those interactions according to the inner workings of their KLW and the result of the processing will result in different outcomes.

Most windmills will turn at an optimal speed. As the wind force increases, the mill adjusts gears so that though externally the blades are spinning at the same speed, internally it is generating more energy. On modern wind turbines an anemometer measures the wind speed and transits that information to the controller which starts up the machine at wind speeds of about 8 to 16 miles per hour and shuts it off at about 65 mph because so the generator will not overheat. Like humans there is a threshold that must be reached to start the growth process and some internal way to regulate external factors when they become too much to handle. Though the blades of the windmill generate

otherwise it serves no useful purpose.

The aerodynamically designed three-blade propeller wind turbine generators with gearboxes to control speeds and convert shaft power into electrical power is the windmill model most closely resembling the TW. The wind passing over the blade creates lift like that of a propeller or wing on an airplane, which in turn causes it to rotate. The rotor can be turned to the wind or away and the pitch of the blades can be adjusted to control the amount of power delivered through the rotor's low-sped shaft through a gear box to the high-sped shaft of the generator. Some windmills have air breaks to control speed in strong winds or emergencies. The height, shape, stability and position of the tower on which the wind turbine is placed all affect its ability to transform the available wind energy into electrical energy. A wind turbine works the opposite of a fan--instead of using electricity to make wind, like a fan, wind turbines use wind to make electricity. The electric fan can also be as a model to explicate the TW.

Helicopter. This analogy is similar to the windmill, except the helicopter's purpose is to fly maneuvered by blades rotating horizontally around a centrally located vertical axis. The helicopter adds the elements of internal energy and maneuverability. The main rotor of the helicopter is driven by an internal combustion engine which creates a force to lift the helicopter where the windmill used external air to turn the blades to run an internal mechanism. In the helicopter the force to interact with the environment is internal and the way it interacts is determined by an internal pilot. An internal engine powers rotates the blades that serve as a helicopter's wings and propeller. The pilot adjusts the rotating wings to control its degree of lift and direction by altering the angle of the blades to the air. There is also the addition of a tail rotor to provide anti-torque and in-flight trim for the helicopter.

Helicopters are the most versatile vehicles in existence allowing complete access to three-dimensional space. Because they can go forward and backward, upward and downward and can also hover and rotate in the air, they are very complicated to operate. To do all of this requires making many complex adjustments while flying to control lift and direction. In addition to lift, drag, gravity, and thrust, there are many other forces at work in helicopter flight. The complexity and versatility of this model make it more closely resemble the operation of KLW in human beings, but also make it harder to understand, and therefore use.

Internal forces direct the KLW to interact with the environment in certain ways according to its capacities and external conditions. When the TW spins, it creates the conditions for flying/developing potential. Because of the complexity of flight and the risks associated, many do not get far off the ground. A person operating at a higher level is able to see, feel, and act from a vantage point beyond those who are not as high and is generally able to be seen by or to affect a greater number and range of people.

Like the above examples, each capacity is connected to and depends on the others for movement/development. Knowledge depends upon and is connected to love and will, love to knowledge and will, and will to knowledge and love. A love for knowledge creates motivation to acquire knowledge. For knowledge to advance, so must the love of knowledge and the will to obtain it. As love grows, the desire to know more to better actualize that love in day-to-day life is created, setting in motion the propeller for developing human potential.

Other Models

Merry-Go-Round. A merry-go-round introduces new elements to extend the metaphors above. The purpose, function and design of the merry-go-round differ from the above examples. The purpose and function of a merry-go-round is to spin so the riders enjoy it. You can sit still on a merry-go-round feel safe and secure, but the purpose and fun are realized when you are revolving around. There is usually an optimal sped to go; if it gets going too fast, it can become scary, if too slow, it is boring. The merry-go-round is designed as a circular platform that revolves where the three aspects of human potential could be represented in three triangular sections joining at both the hub with one corner of the triangle and connecting the other two sections at the other two corners. Most psychologist feel the separation of these three KLW capacities into distinct sections is more conceptual and that the connection and overlap among them is real. Like the examples above, its function and design necessitate some symmetry and force to move it.

In a mechanically revolved merry-go round like those found in amusement parks with seats often in the form of animals, the power comes from a motor. On a playground merry-go-round you or someone else cause it to spin. If it is you, you can control the spin through your own efforts. The development of our own potential also depends on our own efforts. If it is someone else turning you, you can try to encourage them to spin you at speed you desire, work with or against them to change the movement, move either closer to the hub or more out to the edge to change the effect of the spin on you or opt out. The more you become accustomed to the spinning, the faster it may need to spin for you to continue to continue to feel an equal excitement.

We could also conceive of the playground merry-go-round made of three sections that did not join at the outer edges. By pushing on any section the merry-go-round will move. Pushing closer to the center would create different dynamic than at the edges. In this metaphor, the more closely connected KLW to approximate a perfect circle or symmetry, the more advantages can be obtained from design and function.

Primary Colors. If you think of the TW blades as the three primary colors from which all colors come, you can imagine it reflecting the light in unique ways or creating different colors as it spins with the resulting colors becoming a unique individual artistic expression. If you view them as primary colored lights, you can see how they will illuminate their environment according to their hues and strengths. KLW could be represented by the red, green and blue of a monitor that are blended together to create all the visible colors. The KLW could also be seen as different prisms that give more importance to certain parts of the spectrum, but all reflect the lights of knowledge, will and love in their own way.

Mirror. The KLW faculties can also be compared to a mirror in that they reflect whatever they are turned towards. If we turn it to lies and hate, it will reflect them. To the extent we are able to clean the mirror of those things that prevent the pure reflection of truth, love and goodwill, such as selfish desires, the KLW powers will shine forth. We can both polish our mirrors of the dross on negative things and turn it toward positive virtues.

Plant. KLW are as natural and needed for human life as growing is for a plant. It is part of our nature. Given the right conditions, each person will reach his/her full potential and bear fruit. All learning involves the basic human capacities of loving, knowing and willing. Like the water, sun and environmental conditions enable growth in a plant so that it may reach its potential, so does love, knowledge and will in a human being. In literature, especially sacred scriptures, knowing is

compared to water, love to the rays of the sun and will to the earth. The soul can be likened to a sapling whose roots are planted in the earth of the human heart, given life by the living waters of wisdom and nourished by the radiant love of God.

Solar Panels. Like the petals of a flower that turn to the sun to receive nourishment and growth, solar panels also use the sun for energy. If the KLW are consider as solar panels then their size, reflective ability and efficiency, as well as the degree they are turned to the sun will determine their ability to generate power. Like the mirror they need to be cleaned so the virtues of KLW can be manifested in it.

Receptacle. Each person can be compared to a receptacle which varies in size and shape. KLW can be represented by the three sides of a receptacle and the base compared to the physical endowments. Only to the extent that the three capacities grow and are united, is the receptacle able to hold whatever is poured into it.

Electric Motor. Electricity is the interaction between positive and negative charges represented by material and spiritual forces, generally characterized as body and soul. The body, our physical reality, interacts with our soul, our spiritual reality. The KLW capacities collectively represent the spiritual forces and the physical self represents the material. Both are needed to create energy, to turn a motor. It is KLW (+/-) in interaction with the body (+/-) that produces overt behavior. By reversing polarities in the armatures of a motor, it spins creating the necessary power to do what it was designed to do. By alternating quickly and efficiently between the forces of our KLW and our bodies, we are able to accomplish the development of our potential.

Mathematical Explanations

The following formulas have been created to mathematically illustrate the interaction among the KLW capacities.
K x L x W = V: Knowing (K) times Loving (L) times Willing (W) equals Value (V)
V represents the value or worth of an action, achievement or accomplishment.

An increased quantity in any variable equals an increased value.
2K x 3L x 1W = 6V
2K x 4L x 5W = 40V

Each variable can have a positive, negative or zero value.
Positive values result when you put two positives together

- +K=Knowing (+) truth or reality (+); +L=Loving (+) creation, unity or beauty (+); +W=Willing or choosing (+) service, good or righteousness (+)

or two negatives together

- +K=denying (-) dishonesty or falsehoods (-); +L=hating, abhorring or detesting (-) destruction, disunity or ugliness (-); +W =refusing, rejecting (-) disservice, bad or evil (-)

Negative values result when you put a positive with a negative

- -K=Knowing (+) falsehood (-), –L=Loving (+) destruction (-), -W =Willing (+) bad (-)
- -K=denying (-) truth (+); -L=hating, abhorring or detesting (-) creation, unity or beauty (+); -W =refusing, rejecting (-) good or righteousness (+)

Using the same principle, one negative capacity in the formula will result in a negative value.

- -K x +L x +W = -V

For example, those who love (+) falsehoods (-), hate (-) truth (+), know (+) hate (-) will end up with a negative value (injustice). This could be illustrated on the TW if the blades tried to turn in opposite ways.

- love (>/+) falsehoods (</-)
- hate (</-) truth (>/+)
- know (>/+) hate (</-)

However two negatives result in a positive value. For example, someone may not know how to hate or hate a falsehood which good be represented mathematically as follows:

- -K x –L x +W =+V

Zero values for each of the capacities can hypothetically result when neither a positive or negative force exists in them

- 0(K) =ignorance, 0(L) =apathy, 0(W) =inactivity

Mathematically a zero for any capacity results in an overall zero value. For example, if love and knowledge exist, but are not translated into action through will, then no real change has occurred or value been realized in a practical sense.

- 3(K) x 2(L) x 0(W) = 0(V)

Acting without love or knowledge (zero values), or with misguided love or knowledge (negative values), is generally ineffective (0V) or harmful (-V). Those who do not know how to love, love to know or will to know and love, a problem of growth is created. To accomplish anything, the knowledge, love and will to achieve it are needed. When all three capacities work positively in harmony, the individual and society grow, develop and advance.

- +K x +L x +W = +V

Learner-Centered Psychological Principles (LCPP) and the Twirly Whirly Model (TW)

During the last century psychology has supplied much of the theory and research on learning and developing human potential. "The last 20 years have witnessed tremendous advances in theory and research in developmental and cognitive psychology, and on the emotional, motivational, personality, and social processes of individual learners that contribute to the dynamics of the learning process." (Spielberger, 1998, p. ix). Advances in understanding human development continue to accelerate. The current revision of the Learner-Centered Psychological Principles (LCPP) commissioned by the American Psychological Association (APA) Boards of Educational Affairs (BEA) and Scientific Affairs (BSA) and reviewed by leaders and scholars in education, psychology and other scientific disciplines offers a synthesis, foundation and framework of the best thinking on learning.

The Learner-Centered Psychological Principles are consistent with more than a century of research

on teaching and learning; integrate research and practice in various areas of psychology; reflect conventional and scientific wisdom; and provide a framework for and lead to effective schooling, positive mental health and a realization of greater potential (McCombs, B. and Whisler, J., 1997).

The LCPP are used below to further explore and apply the Twirly Whirly Model to current thinking about learning from a psychological perspective. The 14 learner-centered psychological principles developed by the American Psychological Association have been used verbatim below as the organizing structure for a synthesis of my thoughts on developing human potential. It is my hope that these ideas will help learners to better realize their talents and teachers to assist their students to do the same. These principles are categorized according to the following factors: 1) cognitive and metacognitive, 2) motivational and affective, 3) developmental and social and 4) individual difference.

Cognitive and Metacognitive Factors

The six cognitive and metacognitive factors of LCPP deal mostly with the knowing blade of the TW, but also involve the loving and willing blade. Understanding the cognitive and metacognitive factors of the learning processes is a key to promoting human happiness and well-being, two of the goals of the Twirly Whirly (TW) and outcomes of developing human potential.

LCPP 1. Nature of the learning process. ***The learning of complex subject matter is most effective when it is an intentional process of constructing meaning from information and experience.***

The windmill must turn to and use the wind to generate movement. Information and experience are like the wind which we use to construct or generate meaning. Learning results from interactions with the environment using our five physical senses through which our minds take in knowledge. The outward physical senses transfer the energy to which they are exposed to be used by the mill to create meaning. The internal mental senses or properties that operate through the mind such as imagination, which imagines things transmitted through the senses; thought which thinks about or conceives what is imagined or perceived; comprehension which comprehends what is thought by connecting and constructing understanding; and memory, which remembers what the physical and mental senses have experienced. There are also the processes or perceptual faculties that transmit the sensory information to the mind and the mental activities to the senses much like the gears transmit energy from the wind to the mill.

Learning processes are varied, and, like the models of the TW, can move from simple to complex. Learning can be an unconscious, subconscious or conscious process. The process of learning and the development of potential increases to the degree we are intentional using our willing power to be active, goal directed, self regulating and assume personal responsibility; our knowing capacity to identify and exploit learning opportunities and our loving faculties to be attracted to what is good for us. If we can intentionally use information and experience to develop our KLW and use KLW to process information and experience, learning and development increase.

LCPP 2. Goals of the learning process.
The successful learner, over time and with support and instructional guidance, can create meaningful, coherent representations of knowledge.

be consciously known or productive, but they affect learning. The more we are aware of our goals, define them and consciously work towards them, the more likely we are to achieve them. This process can be learned. It takes time and effort. It is the responsibility of parents and educators to assist their children and students in developing their KLW to reach worthwhile, long-term and meaningful goals.

Whatever goals we aspire to, we will tend to move toward. If we use knowing, willing and loving capacities for material ends or lower purposes, we will reflect and move towards them. Because of our KLW powers, people with selfish, individualistic and materialistic goals can become more savage, unjust, cruel and harmful than animals. They can become attracted to and pursue selfish ambition instead of the greatest good for all, prejudice instead of truth, and hate instead of love. They can use knowledge for harm, arrogance and pride rather than to help and serve.

We can assist learners to set their goals high, to strive for noble goals and purposes, to control their passions and desires and to avoid frivolous and useless endeavors. Children can be encouraged in this process and taught these skills from the beginning of their lives. Such training will result in high resolve, sense of purpose and personal capability, self-esteem and an internal locus of control. These aspects of will enable then to accomplish things and bring to successful conclusion whatever they undertake.

Goals start from the center of the TW with the self. Our first goals in life have to do with loving, knowing and doing for the self. As we grow, our goals move from self to family, community, culture, nation, world and beyond. If our goals do not move outward on the TW, then growth will be limited. As educators, we can assist young people to adopt and pursue healthy goals. We can help them create meaningful and coherent representations of reality, which will require moving beyond limited conceptions based on earlier and less mature views to those that integrate self, family, and ever widening and more inclusive social groups and knowledge into a unified whole.

Goals give meaning to life. They direct our energy towards the things we value. If our goals are positive and healthy, they will leave less time and energy for less worthy goals. As educators, we can help students value useful goals and work toward them. One reason education is so important and vital, is that children's success and prosperity depend on it. Success, honor, distinction and prosperity come from service, being the source of social good and the cause of peace, well-being, happiness and advantage to others. These are goals that are worthy of striving for and that give meaning and happiness to life. Unfortunately they are not the goals often promoted in our media, such as to indulge in ones own selfish concerns and interests. Lofty goals move you out on the TW and selfish goals move you in to the hub of self.

Some practical ideas related to goal setting are to set specific goals that are measurable so we know when we have achieved them and can reward ourselves. If the goal is too general or long term, we may lose sight of it or feel it is too difficult to achieve. It is good to have general and long-term goals, but it may be helpful to break them down into several specific short-term goals. Decide what you need to do next to move closer to your higher future goals. Be prepared to alter or adjust your goals as you move out on the TW and gain a better perspective. Establish goals for success, not failure, as this encourages goal accomplishment.

LCPP 3. Construction of knowledge.
The successful learner can link new information with existing knowledge in meaningful ways

We build the blades of our TW based on our existing knowledge, love and will. If these bases are weak, or not well-formed, then additional constructions on them are bound to be in jeopardy. As we learn and develop more, broadening and lengthening the blades of the TW, we add to, modify, refine, change and reorganize our existing feelings, knowledge and will. If we do this in a productive way, our TW will strengthen to face new experiences in a more effective way. Earlier learning based on ineffective or wrong information, motives or behaviors may need to be replaced with more sound and useful KLW.

These three elements, knowing, willing and loving, must be integrated to be effective. As educators, we can help students to construct the blades of the TW, to use them symbiotically, and to integrate them with each other and the self. Understanding how earlier constructions may need to be temporary structures or replaced in light of new understandings is vital for growth. Sometimes scaffolds need to be built to temporarily support and construct knowledge. Knowing when, where and how to use these supports will facilitate the learning process.

In terms of construction, not only do we build on what we have, we also build toward what we want to have in the future. Not everyone constructs, organizes or goes about this process in the same way, goes from the same bases of knowledge and experience or desires the same future results. As educators, we can give students the tools for constructing meaning. Such tools include outlining, webbing, pictographs, concept patterns, sequence patterns, problem-solution patterns, process-cause patterns, generalization patterns, thematic organizers, categorizing, cause-effect relations, and other organizers or learning representations. Knowledge of these tools allows learners to choose the ones that are best for them. The TW models help construct knowledge about developing human potential through concept mapping and organization and metaphorical, visual and mechanical representations of the learning and development process.

LCCP 4. Strategic thinking.
The successful learner can create and use a repertoire of thinking and reasoning strategies to achieve complex learning

Just as craftsmen need to be skilled in their trade and the strategies of their craft, so do learners. As there are many successful strategies to building a house, there are also many successful strategies to learning. These strategies can be taught. Educators can teach, model, assess, and develop strategic learning skills such as making associations, connections, inferences, conclusions, generalizations interpretations, summaries and decisions.

Consultation with and among learners is a powerful tool for acquiring new knowledge, skills, qualities and dispositions. Consultation involves seeking knowledge and truth through joint sharing and investigation. It requires some training and self-discipline to be done successfully and effectively. Consultation requires comparing and contrasting and identifying truth from bias and falsehood, fact from opinion, cause and effect. It is a problem solving approach that involves the knowing, loving and willing faculties to evaluate options.

Using the TW can assist strategic thinking and complex learning by helping students develop their own potential. Using the TW is itself a form of strategic thinking. Our capacities will be enhanced as we develop and use them in more complex, expanded and unique situations. Understanding which of the knowing, loving or willing modes we prefer can help us to start and facilitate our developmental

effective learning. The 4MAT System gives four different learning styles that can be related to the TW: innovative learners ask why, analytic learners ask what, commonsense learners ask how it works and dynamic learners ask what it can become.

Peer teaching where learners question and help one another to solve learning problems can help develop effective learning strategies. Developing reasoning and powers for unfettered search for knowledge and independent investigation of truth are essential to thinking for oneself and true learning. Memorization is a very useful and necessary learning strategy. Teaching effective memorizing strategies will help students become successful learners. Meditation and reflection are also effective strategies and valuable learning tools, since encouraging our head (knowing) and heart (loving) to work (willing) together can lead to great discoveries and accomplishments of knowledge, science, technology and the arts. Parables, stories, metaphors, analogies, play, recreation, travel, music, the arts, drama and other creative expressions are also useful learning strategies that can facilitate learning. The TW incorporates several of these strategies to further understanding of human potential.

LCPP 5. Thinking about thinking.
Higher order strategies for selecting and monitoring mental operations facilitate creative and critical thinking.

Understanding the TW process enables learners to reflect on and refine their basic capacities and apply them to new situations to enhance their autonomy and responsibility. There are four basic ways of knowing truth. The first is through our senses or experiences, the second through reasoning and logic, the third through tradition and the fourth through intuition or inspiration. All are limited and open to error. Used in conjunction, they allow for greater likelihood of finding truth or reality.

Some strategies related to thinking about thinking include the following KLW operations: being aware of your own thinking; planning; being aware of necessary resources; being sensitive to feedback; evaluating the effectiveness of your actions; being accurate and seeking accuracy; being clear and seeking clarity; being open-minded; restraining impulsivity; taking and defending a position; being sensitive to others; engaging intensely in tasks even when answers or solutions are not immediately apparent; pushing the limits of your knowledge and ability; generating, trusting, and maintaining your own standards of evaluation; and generating new ways of viewing situations outside the boundaries of standard conventions (Marzano, et al., 1997).

Putting into practice the findings from the thinking skills research, such as using redirection, probing, reinforcement, higher-order questions, increased wait-time during questioning, computer-assisted instruction and direct teaching and inferential learning of thinking skills, can help students to gain and use them (NWREL). It is crucial for people to have skills in questioning, analyzing, comparing, contrasting, and evaluating.

The above thinking strategies help build the KLW capacities, especially the knowing and willing blades of the TW. Modeling and providing students with instruction in thinking skills to promote growth in KLW makes available ways of constructing and developing the knowing capacity and involve the loving and willing capacities in learning.

LCPP 6. Context of learning.
Learning is influenced by environmental factors, including culture, technology, and instructional

practices.

Learning occurs in a context; it results from some interaction with the environment. These interactions cause the TW to spin. We can categorize the environments with which we interact into the self, others, objects and unknowns. The first and primary interaction each person has is the self with the self, then with other human beings and objects, concrete or abstract, and lastly unknowns, mysteries and entities we do not comprehend,. Most interactions are a combination or collection of the above entities with one or more being dominant. Individuals by interacting in these environments can move out on any of the KLW blades and create motion toward the development of potential in themselves and others.

Teacher to student and student to classroom interactions are potent sources for learning. The teacher plays an important role in creating a good learning environment. Creating contexts to actualize the TW capacities in good ways is the goal of teachers. Teachers have a responsibility to create classrooms characterized by truth, unity and service so as to facilitate the knowing, loving and willing capacities of their students. The educators' use of unity, power, truth, justice, service and their own KLW capacities, affect the classroom environment and learning. When the educators' capacities are properly developed and developing, they can create the energy or force needed to start the students' TW spinning, like a fan or wind blowing on their KLW blades. Classrooms and teachers characterized by love, effort and knowledge will engender these qualities in the students.

Some students are so stuck in their limited and low views of themselves that only a great force can get them to move. In these cases, the lubrication of caring, acceptance, love and service can help. Sometimes teachers need to be forceful in their love, knowledge and justice in order to have effect. By having more authentic, face-to-face, relationships with learners, teachers have more chance of influencing them. If we have not actualized our TW capacities, then we are not in a position to help others do so. This process is synergetic or symbiotic: the more your students spin, the more energy is created, which causes the teacher's TW to spin more as well. The students create a wind to spin the teacher's TW.

The TW is situated in a context and affected by it. If students' TW are turned away or spinning in a different direction, then they lessen impact on the whole class by limiting or disturbing the airflow to other's TW. Use of technologies and instructional processes can coordinate, focus and extend the learners' TW. The KLW capacities are essential in the context of learning and in many ways determine the inner context of the learner. As they turn towards truth, unity, service and justice, the TW can spin. As they turn away from any of these positive forces, the TW will be hampered in its spinning.

Motivational and Emotional Factors

Where the cognitive and metacognitive factors focus more on the head or the knowing capacities, the motivational and emotional factors deal mostly with the heart or the loving and willing capacities. Successful learners must use and have unity among all these facilities of the TW to be successful

LCCP 7. Motivational and emotional influences on learning.
What and how much is learned is influenced by the learner's motivation. Motivation to learn, in turn, is influenced by the individual's emotional states, beliefs, interests and goals, and habits of

thinking.

Motivations and emotions may have an evolutionary purpose or function related to self-preservation, pain avoidance and gratification. However, if we are chiefly guided by our instinctual motivations and emotions, we live more on an animal level than a human level. We can raise motivations and emotions above this level by moderating and integrating them with knowing and willing capacities. Developed motivations and emotions result is such qualities as service, courage, fortitude, integrity, patience, and discipline and a path to happiness and health. Selfish or negative motivations and emotions can greatly limit the KLW of the individual.

The five classic emotions accepted by most psychologists are happiness, sadness, anger, fear and disgust. These emotions can be viewed as different expressions of our loving capacity. Happiness is an emotion that results from having an object or entity that is loved being treated in way that brings pleasure or satisfaction. Happiness increases as we draw closer to what we are attracted to and sadness results when what we love is being removed or hurt. Anger results when a love object is unjustly mistreated or threatened, fear when a love object is being threatened without our ability to do something about it and disgust when a love object is somehow violated. Understanding these as forces of love can help us to regulate and direct their influence in ways that are more beneficial to others and ourselves.

If the love blade in the TW is out of balance with the knowing and willing blades, or not properly developed in relation to them, the ability of the TW (individual) to spin (prosper, be happy, creative, and autonomous) is impeded. By the same token, if the love object is negative, not in accord with beauty, unity, truth, goodness, service or justice, then difficulties will also ensue. As explained in the mathematical models above, love of negative knowledge (untruths) or will (evil) results in a negative value. On the other hand negative emotions like sadness, anger, fear and disgust, all aspects of love, when paired with another negative, can create a positive motivation if used properly. However if these negative emotions become intense and are not properly channeled, and if focus stays with the emotion not the accomplishment of a worthwhile task, they can have a detrimental effect on development. General positive emotions such as joy, inquisitiveness and enthusiasm enhance learning.

Love can be defined as an active force of attraction and as such can be considered the most elemental force in the universe. It can be considered the force that holds all things together, from the atoms to the galaxies. It is also the force that holds groups, societies and civilization together. When this force is missing, disintegration results. If learners and groups of learners feel loved, they will be more likely to realize their full potentials. Therefore, teachers' ability to teach or motivate students is greatly affected by their own purity of motive and ability to express love in action. Sincerity and purity of motive then is vital to success, because it directs and determines the value of any action. Love gives us energy and where we put that energy and effort most often is toward what we love. If what we love is based on ignorance, self-centeredness and selfishness, we are using a formula for failure, not success.

LCPP 8. Intrinsic motivation to learn.
The learner's creativity, higher order thinking, and natural curiosity all contribute to motivation to learn. Intrinsic motivation is stimulated by tasks of optimal novelty and difficulty, relevant to personal interests, and providing for personal choice and control.

Intrinsic motivation is dependent on having a purpose in life—no purpose, no motivation. Maslow's hierarchy of needs is related to the hierarchy of purpose and motivation. These needs in hierarchical order are survival (basic physical needs), security (physical and social protection), belonging (social needs), cognitive (to know), aesthetics (beauty, to love), and self-actualization (to will and do). Later Maslow postulated a self-transcendence (spiritual, to transcend) need. Some people's purpose and motivation is only to survive, the lowest level of Maslow's hierarchy. The lower level needs only act as motivators when they are absent, The lower needs represent the physical concerns, the hub or shaft of the TW. KLW represent the highest levels in Maslow's hierarchy. The higher order needs become more motivating the more you have of them. The higher the purpose, the higher and more sustaining the intrinsic motivation. Those who reach self-transcendence are at the stage of the TW spinning creating its own energy with all three blades united and fully functioning.

Intrinsic motivation depends on a level of autonomy of knowledge, love and will within social structures based on truth, unity and service. Intrinsic motivation can be facilitated by increasing relevance, curiosity, novelty, choice and control, interest, mild anxiety, emotions, challenge and feedback. As we grow in healthy inner love, knowledge and will, we gain in capacity, courage and intrinsic motivation.

When growth has been rewarded, rather than punished, it releases increased mental, emotional and physical energy. It is natural to avoid pain and suffering, but some will be encountered in the growth process. Hardships not be avoided but welcomed as ways of encouraging motivation and development. Mental and emotional pain and suffering are often internally perceived and defined based on the values of the culture, not based on reality outside that cultural definition. What one person may see as physical pain and suffering may be seen and experienced by another as fun and rewarding (e.g. physical or mental exercise). If effort is related to valued goals that are believed to be achievable, some sacrifice is expected and accepted in the process.

Extrinsic motivators, rewards and punishments though needed and useful, are limited and can hinder motivation, especially if one is intrinsically motivated. We should move away from dependence on extrinsic motivators and move toward intrinsic motivations in a deliberate and measured way. Whenever possible and practical, students should be given choices about learning to help develop their volition and intrinsic motivation and understand and own the results of their actions. If they comprehend the relationship between cause and effect, then they will be intrinsically motivated to follow the course that optimizes their happiness and well-being. They need to be in charge of their own transformations by making them competent in applying their KLW faculties.

9. Effects of motivation on effort.
Acquisition of complex knowledge and skills requires extended learner effort and guided practice. Without learners' motivation to learn, the willingness to exert this effort is unlikely without coercion.

If interactions with the environment are seen as opportunities for growth rather than threats to well-being, we are more likely to engage in them. Engagement with learning, effort and motivation are increased if the experience is positive and the learner feels safe and secure. Motivation and effort are also activated by avoidance of unpleasant stimuli, such as negative reinforcements and punishments. Fear, anger and disgust, all aspects of love, can be very motivating emotions and may be used to assist learners to exert needed effort to maximize the positive and minimize the negative emotions.

Perseverance is an essential condition to the accomplishment of any task. Motivation is positively related to effort and effort is positively related to relevance. If learners do not see the relevance of learning to their lives, motivation and effort will be negatively affected. School learning is often perceived as not relevant to the students' lives.

When we know what to do, want to do it and act on it, we get our TW spinning with increased effort, mastery and courage. Once in motion, inertia tends to keep it spinning. Our actions evoke reactions and therefore increase the likelihood of continued growth and development. These actions and reactions have positive and negative charges and will react to one another to either increase or decrease the spin of the TW. The more conscious, deliberate and proactive we become, the more likely we are able to keep our TW spinning. We can help students be attracted to good qualities, and repelled away from the bad that may appear attractive, but actually be destructive. It is our perceptions of reality and of cause and effect relationships rather than reality itself that often determines our actions and motivations. If our perceptions are not reality-based, than adjustments need to be made.

The law of causality is as true in the mental and spiritual world as it is in the physical world. Every effect has a cause and every cause and effect. Energy must be exerted to create a change of state. No effort, no growth. Interactions between self and reality are the cause of growth and development, and can lead to true happiness and autonomy. We can control our responses to the challenges life offers us, but we cannot control the challenges. To effectively respond requires effort and an internal locus of control. As we actualize our potential, we experience cognitive, affective and physical benefits, and are further motivated.

Achievement motivation is related to the knowing and willing aspects of the TW and affiliation motivation is related to the loving aspect. Effort, related to will, is a combination of all the TW capacities. It starts with love, desire or attraction, goes to knowing how to fulfill our wants, and results in willing to realize the object sought. Accomplishment requires discipline, self-regulation, goal directedness, activity, personal responsibility and other cognitive, metacognitive and affective factors.

Teachers can first work to develop their inner and outer KLW capacities then bend the energy generated toward whatever may foster the education of their students. They should encourage and counsel their students through means based on love and reason. Verbal or physical abuse harm the character and learning of others, especially children. They can teach resolution, endurance, perseverance, constancy, strength, determination, striving, high mindedness, firmness of purpose and other qualities and traits related to motivation and effort. If we teach them to dedicate their lives to matters of importance and to what will benefit humanity, they will be enabled to accomplish whatever they undertake and become happy and successful individuals.

Developmental and Social Factors

LCPP 10. Developmental influences on learning.
As individuals develop, there are different opportunities and constraints for learning. Learning is most effective when differential development within and across physical, intellectual, emotional, and social domains is taken into account.

Development is the process of potentiality becoming actuality. The basic human capacities of

loving, knowing and willing seek expression in life. At conception, unique genetic potentialities are endowed upon each person. In nine months that person goes through millions of years of evolutionary development, from a microscopic cell to a fully developed infant capable of living outside the womb. For its development to continue, it must leave the womb and enter this world where it can continue its growth and development process. As educators, we can assist them to develop rapidly through educating their capacities with the accumulated wisdom of the ages. As young people grow in competence, they are able to take increasing responsibility for their own process of development and becoming using their KLW capacities.

Differentiation, integration and generalization are the processes of learning and development, whether it is physically, intellectually, emotionally, socially or spiritually. This process starts at the moment of conception and continues throughout life. Learning in the earlier stages becomes the foundation for and will affect later stages of development. In whatever way a tree is bent, it will grow. Therefore, early growth, development and education are vital to future well-being.

All living things go through different stages or degrees of maturity. At each new stage, new powers and capacities are evident. A plant reaches maturity when it bears fruit, an animal when it is fully grown and functioning, and a human when the KLW capacities are well developed. The different stages that individuals, groups and humanity collectively go through are analogous. The developmental stages most commonly accepted are infancy, childhood, adolescence and adulthood. If we understand these developmental stages, we can better assist others to develop their KLW appropriate to their level and to move toward the next.

Infants should receive love, knowledge and activities according to their powers and capacities. As they grow and develop, entering into childhood, further training and education according to their maturity level are needed. In puberty and youth, the limitations of childhood give way to release new energies and abilities, calling for new conditions, requirements and education. In adulthood, we continue our growth and development utilizing mature powers. It is toward this autonomous, conscious and responsible use and development of potentialities that parents and educators are to be directing young people.

Teachers need to use their TW to know when, what and how to teach students, to develop their KLW faculties. Educators need to be like doctors diagnosing and prescribing what is needed for each stage of development. If children are not developed, have some bad traits or are lacking in some quality, they should be patiently trained, healed and remedied, not oppressed, criticized and censured. Encourage children to make the greatest progress in the shortest time. Growth and development are not dependent on age, but on the powers of the TW. The more we persevere and strive, the greater the progress and development. An environment where individuals are realizing their potential by developing their capacities is dynamic and energized, thus feeding the ongoing developmental process.

LCPP 11. Social influences on learning.
Learning is influenced by social interactions, interpersonal relations, and communication with others.

Our first and most primary relationship is with ourselves. Next is our relationship with our parents, especially our mothers, and then with our families. Learning is greatly influenced by our interactions with significant others. Other people can cause our TW to spin more than most other entities. An

interaction with others generally involves all three human capacities of knowing, loving and willing. Relating with others helps validate or modify our view of reality and of ourselves, and helps others do the same for themselves.

It is primarily in social groups that love and will are exercised to create unity, service and justice. Relationships that are caring, complementary, collaborative and cooperative are productive. Competitive relationships are destructive in that they are divisive and unjust: they are not based on limited views of love, truth and service. They result in mistrust and alienation. If students are compared to one another and told they are better or less than another, their progress is hindered. They should be encouraged according to their own capability to strive for their highest degree of excellence, not to be superior to the next person, but to be improved so that they may be of better service to others.

Consultation with others is an effective method for investigating reality and gaining insight and understanding. Consultation helps create greater love, fellowship, unity, illumination, happiness, awareness, certainty, awakening and well-being. Having learners ask one another questions and help each other find the answers can further and accelerate learning. Peers can often explain things to one another in a manner that can be more easily understood and accepted and in the process acquire a deeper knowledge themselves. Children can learn many things in play and social activity.

Recognizing each individual's intrinsic worth can help eliminate harmful social structures. Not all social influences are productive or good. Teachers can encourage and create healthy social influences in their classrooms where the virtues of discipline, order, patience, forbearance, understanding, detachment, service, compassion, tolerance, love, kindness, fellowship, righteousness and other interpersonal skills are taught.

Students should act with kindness, forgiveness and mercy to one another and not seek retaliation or to punish, but the teachers should see that the rights of all in the community are protected and that wrong doing is punished and good is rewarded. This punishment is to establish protection, security and justice, needed for unity and peace to exist, and to discourage further wrongful acts. This punishment is a process of education and socialization and must be done with love, care and wisdom. The children need to be so educated that they would not commit a crime or wrong to another, that they would not betray the love and trust of the community. Try to prevent any wrongdoing, but if it occurs, act to prevent its re-occurrence.

To improve social influences in the classroom, we can teach human relations skills, conflict resolution and consultation as ways of solving problems and dealing with differences; expand students' loyalty and identity to include all humanity; make and enforce rules that preserve and enrich the dignity of all peoples; encourage positive interaction among people who are different from one another; create prejudice-free classrooms that do not allow "put-downs" of others' identities; empathize with others and help them build healthy self-concepts without developing a sense of superiority; follow and promote the golden rule and create a positive and united learning community that celebrates the uniqueness of all its members. The above activities encourage safety, stability, trust, caring, self-respect, sense of belonging, self-acceptance, moral and social competence, perspective taking, reflection and flexibility in thinking; all vital factors in developing a positive learning climate and the KLW faculties.

Individual Differences Factors

LCPP 12. Individual differences in learning.
Learners have different strategies, approaches, and capabilities for learning that are a function of prior experience and heredity.

Each person has unique endowments, powers, responsibilities, talents, interests and capabilities based on innate, inherited and acquired characteristics. Inherited characteristics come from our genetic makeup and acquired characteristics come from education resulting from our genetic endowments interacting with the environment. Innate capacities and characteristics are those inborn qualities that make us unique even from those who had the same parents and similar environmental influences.

The combination and interaction of these three characteristics determines individual differences. We cannot change the innate and inherited qualities since they are given to us at birth, but the degree to which we are educated will determine how we will develop and realize our innate and inherited potentialities. Education is important in that it is the only area we can significantly influence. The differences education and experience can cause are very great.

We have all been endowed with many powers such as intellect, understanding, reason and the ability to seek out and investigate reality for ourselves. Blind imitation and obedience are destructive to the individual and society. We are to know from our own knowledge, see with our own eyes and act from our own hearts, not through others.

Educators can help learners to understand, develop and use their talents, interest, capabilities, environments and limitations to their benefit, to increase the spin of their TW. Teachers can help their students know themselves, accept themselves, trust themselves and develop themselves by helping them know, accept, trust and develop their capacities. The ultimate authority and responsibility to do this lies with the individual. As part of that process, we begin to recognize our KLW abilities and the limitations of acting on narrow ways of loving, knowing and willing. Educators can help students understand, accept and work with their unique KLW resources and provide the means, material and methods to develop them.

At this stage, we can look for valid sources of knowing, willing and loving outside of ourselves. When we find them we can use them to augment our own KLW faculties. The process of independent investigation of truth, altruistic love and goodwill requires applying and exercising our KLW to find a healthy balance among independence, interdependence and dependence.

We all have the KLW capabilities of the TW; these are part of human nature. As human beings, we all have been created noble and with intrinsic value. We each have rights and preferences that are related to the TW: to know, love and will. Individual identity and integrity depend on the three TW faculties and powers being harmonized. Often our feelings, knowledge and actions are in conflict with one another. This can lead to emotional, mental or behavioral disorders of several types.

LCPP 13. Learning and diversity.
Learning is most effective when differences in learners' linguistic, cultural, and social backgrounds are taken into account.

Our similarities are greater than our differences, but we are each unique. Science confirms the essential oneness and unity of the human race, but that no two people are exactly alike, even

identical twins. We are alike in that knowing, loving and willing are part of our natures and purpose, but each person has unique endowments, experiences and heredity. Everybody's KLW faculties, subjective reality and experience are unique.

We each bring special talents, abilities, personalities and interests to learning. We need not make our differences a source of disunity, conflict or competition. As in the physical world, the richness, health, well-being and beauty of an individual or group depends upon the principle of unity in diversity. One of the goals of the TW and education is unity in diversity. A teacher should always work to appreciate diversity while maintaining unity. Diversity and the differences around us are powerful forces cause our TW to spin.

Some falsely fear that diversity will lead to disunity and think unity requires uniformity. Justice, love and truth help create unity in diversity. We can change our ignorance to knowledge, hate to love, injustice to justice, conflict to unity, and violence to peace as move toward truth, beauty and service from our various perspectives. We can positively create unity in diversity in our communities, curricula and classrooms, and in the process, make this a better world for all of us.

We should teach according to each individual's capacity, needs and interests and help learners become aware of their similarities and uniqueness and ways they can best develop their unique potentialities. The individual is like a mine filled with rich gems and minerals which education can alone reveal. Though there are basic principles of mining, each mine is different. It has different gems or minerals and different methods to extract the virtues it contains. We can value, find, extract and polish our and others' virtues, and encourage others to do the same.

LCPP 14. Standards and assessment.
Setting appropriately high and challenging standards and assessing the learner as well as learning progress – including diagnostic, process, and outcome assessment – are integral parts of the learning process.

Justice and equity are basic in discussing standards and assessment. Justice depends on altruistic love (L), fair mindedness (K) and goodwill (W). Equity is a fundamental virtue and the evaluation of all things depends upon it. Many standards and assessments are not based on justice and equity, but instead on injustice and prejudice, and therefore, are discriminatory and harmful. In view of justice and equity, all should be given an education according to their needs and capacities using a universal curriculum and standard.

There is right and wrong. The root of wrongdoing is ignorance. The right should be taught and encouraged, th[illegible]ong discouraged. Knowledge is like wings for development or a ladder for the ascent of the individual. Students should show the results of their learning through their lives, deeds and actions. Each child, according to his/her individuality and capacity, should be encouraged to reach the highest levels of achievement and taught to self assess progress on a daily basis.

The standard of truth can be found through our senses, reason, tradition and intuition. Each of these methods is faulty, but used together can serve as a fairly reliable source of truth. The sciences and religion considered together also offer a balanced source and standard of truth.

We should all strive for excellence and promote learning and knowledge. Excellence should be the standard for whatever we are developing. Excellence will have both a group and an individual

should train our students for excellence in whatever endeavor they choose. Education is a necessity; it is the foundation of human excellence, prosperity, joy and glory. Most people today tend to be superficial in their thinking, feeling and doing. Part of this is the result of the low standards in our society.

Teachers themselves should exemplify excellence in teaching and high standards in their lives. They should be well educated and refined, well grounded in psychology and pedagogy, and dedicated to excellence and education. Education should be systematic and organized to facilitate this learning. Like medical doctors do for the body, so can teachers so for the KLW; first diagnose the problem then prescribe the remedy using the highest scientific and ethical standards. Learners need to make ongoing assessments of and adjustments to their learning.

The human being is the highest value in our world, and the KLW creates categories of standards that can be assessed relative to truth, unity, and service. Through action, we can demonstrate and assess the degree to which our TW is developed. Children must be trained to be excellent in knowing, loving and willing. Good and bad are relative terms. Good is the moving toward the developing of the TW and bad is what hinderers its development. All individuals should strive for the standard of being the source of good.

Conclusion

The thoughts expressed above have been inspired by or derived from the Bahá'í writings, psychology and education. Both body and soul (KLW) have innate (spirit), inherited (body) and acquired (education) characteristics. Both are actualized through interaction with environment. Learning is a proactive and reactive process between the body and the soul. The body is an instrument and vehicle for the soul's development. Innate/natural capacities (KLW) are all good when used with good motives, but can be bad when improperly used. These abilities must be disciplined and trained according to laws of development. These competencies require self-improvement.

When our TW is spinning or twirling, we are developing or realizing our potential, which can be considered our purpose in life. The social structure the teacher creates will determine the extent each individual TW will feel free and be enabled to spin. Teachers are to act morally to create a moral order in their classrooms—to act with truth, love and justice—so both individual and social good are served. As the education and training of children help them realized their potential, they can be considered among the most meritorious services one can perform in the world.

We grow intellectually analogously to how we grow physically: we take in, assimilate, utilize, grow and develop. Not all that we physically take in is good or useful. Like physical growth and health, intellectual growth can be in a healthy way or not. Not all knowledge, love, actions or reactions are beneficial. There are many mistakes and errors made in this process of refining our TW. Stages of growth result from creation, expansion and consolidation of capacities.

Educators can create environmental influences and guide learners' responses in healthy ways to develop their individual cognitive, motivational and social faculties. An individual is like steel, which needs education, refining and forming to be made valuable, and which left on its own becomes corroded with desires and ignorance.

love into action and living our lives with love and knowledge. It is only in moving out on the TW that we can gain a truer perspective of ourselves and reality. As we move away from the center self-attraction outward to higher powers, we obtain a truer knowledge of self and become a better person. If we focus on material and selfish aspects of life, the hub of our TW becomes over developed and hampers development. The more the KLC blades grow the more they can turn the TW and develop our potential. All three potentialities must turn together for the individual and society to grow, develop and advance.

Education can be divided into three kinds: material, intellectual and spiritual. Material education is the education of the physical body, intellectual education relates to civilization and intellectual development and spiritual education is the acquiring of virtues. These three types of education can also relate to the three blades of the TW: material for the willing blade, intellectual for the knowing blade and spiritual for the loving blade. Each must be developed. Education should cover all three aspects: the physical, intellectual and spiritual. Each level is progressively more difficult to measure, but standards and assessments can be made for each. Health and nutrition are the primary sources for developing the first; family, schools, and society the second; and religion the last.

Physical education is to assist the whole person, nurture and strengthen the body and develop bodily soundness and health through such things as proper care of the body, outdoor activities, play and athletics. Intellectual education relates to those activities that distinguish humans from animals, that contribute to the advance of civilization and that are of use and benefit to the world, such as useful arts, crafts, trades and sciences. Spiritual education is more important than all the others in that it inspires, guides and regulates all other education in healthy ways. This involves moral education and the acquiring of spirituality, morals and virtues. The full and proper development of the TW capacities can be called spirituality or spiritual growth. Morality furthers the advance of that process. Education according to this view is a spiritual and moral process and the highest forms of knowing, loving and willing are knowledge of God, love of God and abiding by the will of God.

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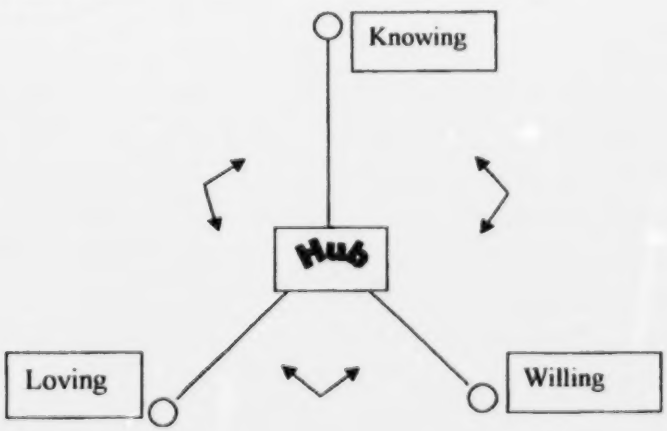
Figures

Figure 1. Comparison of Human Capacities

Know	Love	Will
See	Feel	Act
Head	Heart	Hand
Mind	Soul	Body
Cognitive Domain	Affective Domain	Conative Domain
Cognitive Psychology	Humanistic Psychology	Behavioral Psychology
Truth	Unity	Service/Justice
Logic/Epistemology	Ethics/Aesthetics	Metaphysics
Truth	Beauty	Good
(Secular Humanist) Reason	Compassion	Courage
(Hindu/Buddhist states) Subtle	Casual	Gross

Figure 2. Twirly Whirly Model



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